

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: FAIL-SAFE

Report Number: P489605

Luminaire Tested: **CLM-24-4-INS-A19156-LD4-1STD-35-120-EDD**

Issue Date: 3/11/2021

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.



Test Information

Test Method: LM-79-08
Report Number: P489605
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2101-115-8)
Test Lab: INNOVATION CENTER
Issue Date: 3/11/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: CLM-24-4-INS-A19156-LD4-1STD-35-120-EDD
Description: 2X4 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

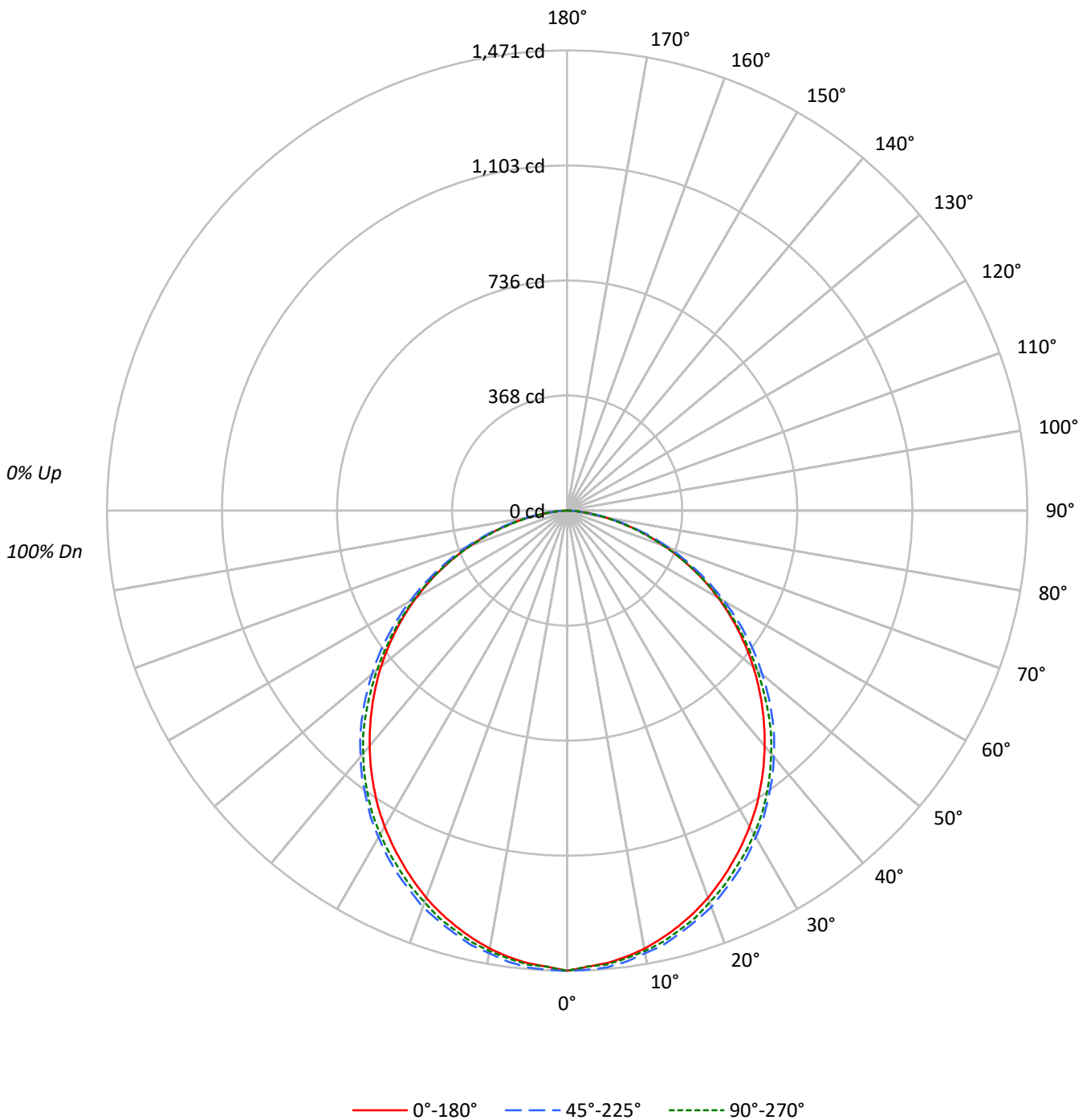
Lumens per Lamp: N/A
Luminaire Lumens: 3867.5 lumens
Efficiency: N/A
Efficacy: 116.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 33.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT

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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20	
RC	80				70				50				30				10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	105	100	97	106	102	98	95	98	95	92	94	92	89	91	88	87	85
2	99	91	85	79	97	90	83	78	86	81	76	83	78	75	80	76	73	71
3	91	80	72	66	88	79	71	65	76	70	64	73	68	63	71	66	62	60
4	83	71	63	56	81	70	62	56	68	61	55	65	59	54	63	58	54	51
5	77	64	55	48	75	63	54	48	61	53	48	59	52	47	57	51	47	45
6	71	58	49	42	69	57	48	42	55	47	42	53	47	41	52	46	41	39
7	66	52	44	38	64	51	43	37	50	43	37	49	42	37	47	41	37	35
8	61	48	39	34	60	47	39	33	46	38	33	45	38	33	43	37	33	31
9	57	44	36	30	56	43	35	30	42	35	30	41	35	30	40	34	30	28
10	54	41	33	27	52	40	32	27	39	32	27	38	32	27	37	31	27	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1979	1979	1979
5°	1961	1979	1967
10°	1943	1963	1953
15°	1916	1947	1933
20°	1886	1931	1907
25°	1849	1903	1881
30°	1812	1873	1856
35°	1771	1841	1824
40°	1725	1805	1782
45°	1677	1761	1728
50°	1626	1705	1660
55°	1567	1641	1590
60°	1500	1563	1514
65°	1414	1468	1415
70°	1301	1354	1287
75°	1146	1198	1128
80°	931	972	921
85°	648	692	675



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	138.5	3.6
10°-20°	392.6	10.2
20°-30°	585.6	15.1
30°-40°	693.9	17.9
40°-50°	702.1	18.2
50°-60°	613.2	15.9
60°-70°	448.1	11.6
70°-80°	238.4	6.2
80°-90°	55.1	1.4
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1116.7	28.9
0°-40°	1810.6	46.8
0°-60°	3125.9	80.8
0°-90°	3867.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3867.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1471	1471	1471	1471	1471	
5°	1452	1455	1466	1469	1456	138
15°	1376	1385	1398	1406	1388	388
25°	1246	1261	1282	1286	1267	574
35°	1078	1095	1121	1129	1111	674
45°	881	897	926	926	908	680
55°	668	682	699	689	678	597
65°	444	453	461	452	444	440
75°	220	226	230	222	217	234
85°	42	43	45	45	44	53
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1471.1	1471.1	1471.1	1471.1	1471.1
2.5°	1459.6	1464.3	1469.2	1471.4	1459.4
5°	1451.9	1454.7	1465.5	1468.9	1456.5
7.5°	1439.3	1443.5	1454.0	1455.6	1443.6
10°	1422.2	1429.5	1436.6	1444.2	1429.7
12.5°	1400.2	1410.2	1422.2	1423.5	1412.5
15°	1375.6	1384.8	1397.8	1406.2	1388.0
17.5°	1348.0	1356.9	1373.7	1375.3	1364.2
20°	1317.2	1328.2	1348.4	1352.0	1332.2
22.5°	1282.2	1297.1	1314.0	1317.3	1302.8
25°	1245.6	1260.9	1281.8	1286.5	1267.1
27.5°	1207.3	1222.0	1245.4	1248.8	1232.4
30°	1166.2	1180.0	1205.8	1211.4	1194.7
32.5°	1124.5	1138.3	1166.8	1171.6	1155.3
35°	1078.2	1095.1	1121.0	1128.8	1110.6
37.5°	1031.0	1047.4	1076.9	1083.9	1064.3
40°	982.1	998.4	1027.4	1033.2	1014.3
42.5°	932.2	948.4	979.4	980.3	964.7
45°	881.1	896.8	925.6	926.3	908.1
47.5°	829.3	845.1	870.9	868.0	850.8
50°	776.9	791.9	814.5	808.6	793.2
52.5°	722.7	737.2	758.5	749.0	734.5
55°	668.1	681.6	699.4	689.2	677.9
57.5°	613.1	626.7	640.4	630.1	620.3
60°	557.6	569.5	580.7	570.3	562.8
62.5°	501.2	511.5	521.1	511.1	504.1
65°	444.2	453.2	461.2	452.0	444.5
67.5°	387.5	395.1	402.5	393.0	385.2
70°	330.8	337.3	344.1	334.3	327.1
72.5°	274.8	280.6	286.6	277.1	270.8
75°	220.4	225.5	230.4	221.9	217.0
77.5°	168.4	172.7	176.1	170.7	166.0
80°	120.2	123.4	125.4	123.2	118.8
82.5°	77.2	79.5	80.6	80.5	77.6
85°	42.0	42.8	44.8	45.2	43.7
87.5°	16.2	17.3	17.8	19.2	17.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)